

Andrew RAYNER
Serial No. 10/571,062
May 11, 2010

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

The Examiner is thanked for providing a "response to amendment" section at pages 2-3 of the office action. The Examiner's comments concerning Ishioka and/or Omuro are dealt with in more detail below.

The Examiner is also thanked for calling attention to the fact that earlier claim 14 did not explicitly recite the "change of the difference". This has been remedied by the above amendment.

The statement that claims "1, 4 and 21 are alternately rejected under 35 U.S.C. §102(b) as being anticipated by Ishioka..." is not understood. Based on the following more detailed comments, it is presumed that the Examiner meant to state a rejection of claims 1, 14 and 21. The reference to "alternately" is, however, still not understood and is assumed to be a typographical error of some sort.

The present invention is concerned with detecting whether changes in routing paths have occurred and generating an alert if a change in the difference of packet arrival times is detected. This is because changes in the time difference are indicative of changes to the path a packet has taken from the source to the destination. It is useful to alert the network user of any such changes.

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Ishioka does not address the same problem of determining whether a path has been altered, but rather is concerned with overcoming the inflexibility of statically defined packet routes in routing tables for a label switched network. As explicitly stated in paragraph [0008] of Ishioka, the problem is that such packet routes registered in a routing table are not guaranteed to be the shortest or optimal ones, which sometimes causes inefficiency in the packet transport. To address this, Ishioka discloses a transmission testing unit for determining which packet route in the label switched network is expected to be fastest for delivering future messages and a packet transmission unit for sending packets in accordance with the determinations of the transmission testing unit. In this way, the routes selection for sending packets is determined dynamically instead of on the basis of static routing tables.

While Ishioka discloses processing to provide the prerequisite condition of “the paths each having a transit time associated therewith”, it fails to disclose the recited method of monitoring the difference between the transit time of a first signal path and the transit time of a second signal path such that a change in the difference between the transit times of the two paths is detected; comparing the detected change in difference against a threshold value; and, in dependence at least in part on any such detected change exceeding the threshold value, generating an alarm signal.

As described in paragraph [0023] of Ishioka, the transport time evaluation unit calculates the difference between the transmission time and reception time of each

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packet. Evaluating such difference values for all test packets, it ranks the plurality of routes in terms of their packet transport times. The packet transmitter selects an appropriate route from the resultant ranked list of possible routes, and sends out given IP packets to the link on the selected route. The transmission testing unit also supplies its evaluation test result to the display controller, allowing it to display the information on the monitoring screen of a maintenance console that is attached to the communication device.

While Ishioka calculates differences in the packet transport time between the different routes, it merely does so for the purpose of ranking the available routes so the fastest route can be used. The difference in transit time is displayed on a screen, but there is no disclosure of further processing by the communication device, let alone of the specific steps set out in the claims of thresholding the change in the difference and generating an alarm if the threshold is exceeded. Indeed, the term “change in difference” does not even appear in Ishioka because it is not concerned with changes in the difference, only in their presence for ranking purposes.

As above amended, each of independent claims 1, 14 and 21 requires generating an alarm signal if a change in the difference between transmit times along first and second paths exceeds a threshold value. As explained above, Ishioka is completely deficient in this respect – at least in part because Ishioka is directed to an

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entirely different teaching with respect to the purpose for determining the transmit time associated with different signal paths.

Given such fundamental deficiencies of Ishioka as already discussed, it is not necessary at this time to detail additional deficiencies of Ishioka with respect to other aspects of the rejected claims. Suffice it to note that, as a matter of law, it is impossible to support even a *prima facie* case of anticipation unless the cited single prior art reference teaches each and every feature of each rejected claim.

The rejection of claims 1-21 under 35 U.S.C. §103 as allegedly being made "obvious" based on Omuro '534 in view of Ishioka '391 is also respectfully traversed.

Fundamental deficiencies of Ishioka have already been discussed above with respect to independent claims.

There is nothing in Ishioka to suggest further processing of the packet transport times in the manner defined in applicant's claims. Absent impermissible hindsight of the applicant's own invention, the person ordinarily skilled in the art would not adapt the communication apparatus to perform the claimed processing.

Omuro also is not concerned with the same problem as the present invention of detecting whether a change to a path has occurred, but rather relates to a change-back system for maintaining the order of packet delivery at the receiver even when the preferred routing path has changed. As stated in the previous response, Omuro does

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not calculate a change in the difference between the transit times of the paths, and it appears that the Examiner now also agrees. Omuro only measures the time difference once in order to calculate the guard time necessary for switching from one path to the next.

Omuro also fails to disclose the newly added features of comparing the change in the difference against a threshold value and, in dependence at least in part on any such detected change exceeding the threshold value, generating an alarm signal.

The Examiner recognizes that Omuro fails to disclose certain claimed features and thus relies on a combination with Ishioka. However, as previously stated, Ishioka fails to provide the missing features. While Ishioka calculates a difference in transit times, it too fails to disclose calculating a change in the difference times for the reasons set out above. The Examiner's attempt to map the information shown on the display is based on conjecture and impermissible hindsight knowledge of the claimed invention as to what the ordinarily skilled person could do.

Given such fundamental deficiencies as already discussed with respect to both of the cited references and some aspects of the independent claims, it is not necessary at this time to discuss any further deficiencies of this allegedly "obvious" combination of references with respect to other aspects of the rejected claims. Suffice it to note that, as a matter of law, it is impossible to support even a *prima facie* case of "obviousness"

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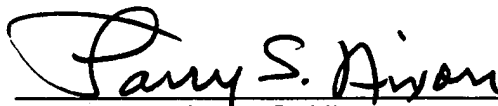
unless the cited prior art teaches or suggests each and every feature of each rejected claim.

Accordingly, this entire application is now believed to be in allowable form, and a formal notice to that effect is earnestly solicited.

Respectfully submitted,

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